

US EPA ARCHIVE DOCUMENT

Introductory Discussion  
With the  
SAB 3MRA Review Committee

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# CONTEXT

- The Problem, Regulatory History, Stakeholders and Implications
  - Mixture and Derived-from Rule
  - History
  - Stakeholders/participants/interested parties
  - Tool to Promote Multimedia Environmental Management

# CONTEXT

- Process, timeline, budget, personnel
- Timeline
  - 96-97 problem definition
  - 98-99 assessment strategy/model development
  - 00-01 notice/testing/peer review
  - 02-03 sensitivity/documentation/SAB
- 30-40 team members, FTE/Contract \$\$s

# CONTEXT

- Congressional Direction
  - Appropriations Language
  - Direction to conduct overview peer review
  - Restrictions on 3MRA use

# CONSIDERATIONS

- Scope and Scale of the SAB Review
  - EPA's Strategy to Ensure the Soundness of 3MRA
    - ORD
    - Legacy Models
    - Data Acquisition
    - Peer Review
    - Independent Software Testing
    - Hands-on Software Use
  - Looking for a Holistic Overview Examination of the System and Process that EPA Used to Develop 3MRA

# CONSIDERATIONS

- Implications of the SAB Review
  - We have intentionally focused the review on our specific application
- The Implications are however Broader
  - Other Uses and Applications
  - Other Agencies and research organizations are actively using the model, its components, or structure
  - Future Investment

# CONSIDERATIONS

- Consider Related Efforts:
  - CalTox
  - ASTM – Risk Based Corrective Action Stds
  - Superfund Soil Screening Levels
  - TRIM
  - MEPAS etc.

# CONSIDERATIONS

- What is the proper level of complexity?
  - Tradeoffs:
    - More input data,
    - More output data,
    - Difficulty with information management,
    - Better represent the environment,
    - Overall Modeling approach
    - Simulation time

# CONSIDERATIONS

- Model Development is an Ongoing Process
  - No useful model is considered “finished”
    - Continual development and enhancement
  - 3MRA is no exception

# CONSIDERATIONS

- Legal Standard
  - Standards used by the DC Circuit when evaluating environmental models used in rulemaking
    - “Rational Relationship”
    - “Best Available Science”
    - Deference

# CONSIDERATIONS

- 3MRA allows decision-maker to consider uncertainty and control conservatism
- Explore the risk metric: unique, interesting information for decision makers, and driven by a precise problem statement
  - Spatial and Temporal Characteristics
  - No MEI – Rather Individual Risk Distributions, Weighted by Population Density
  - Handling of Subpopulations
  - Similar Handling of Ecological Receptors and Habitats

# CONSIDERATIONS

- Think of the Model in Practical Terms
- Regulatory Tool
- Remember the Problem Focus
  - National
  - Multimedia
  - Individual Chemicals
  - Ecological and Human Receptors